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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,367	07/18/2000	Stan Jirman	APLE.P0005	8886

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EXAMINER

CAO, DIEM K

ART UNIT PAPER NUMBER

2194

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/618,367	Applicant(s) JIRMAN ET AL.	
	Examiner Diem K. Cao	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-38 are pending. Applicant has amended claims 1-2, 4-9 and 11-25 and added claims 26-38.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/1/2005 has been entered.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 10 and 13 rejected under 35 U.S.C. 102(e) as being anticipated by Niemi et al (U.S. 6,470,388).**
5. As to claim 10, Nock teaches a system comprising:

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- a foundational layer (logging service layer 316, 318, network communication facility 332, 334, and centralized logger 236) upon which applications (network management applications 208a, 208b) are built and executed (fig. 3); and

- an event logging mechanism (logging service layer 316, 318, and centralized logger 236) executing independent of said applications [It is noted that getting debug objects or states does not involve actions of an application program, col. 14, lines 46-63; col. 15, lines 43-48], said mechanism for generating an event log (record or data entry 514) for any of said applications without referencing any event logs of said applications [it is noted that the production of record 514 does not reference any event logs of the applications]. See col. 11, line 53 – col. 12, line 61.

6. As to claim 13, Niemi teaches the foundational layer includes a programmable framework (libraries to implement logging service layer, col. 6, lines 55-67).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 12, 23, 24 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al (U.S. 6,470,388).**

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9. As to claim 12, Niemi teaches the foundational layer includes network communication functionality (332, 334) which is typically provided by an operating system. Therefore, it would have been obvious to include an operating system into the foundational layer of Niemi.

As to claim 23, Niemi teaches a system comprising:

- a foundational layer (logging service layer 316, 318, network communication facility 332, 334, and centralized logger 236) upon which applications (network management applications 208a, 208b) are built and executed (fig. 3; col. 11, line 53 – col. 12, line 61),
- a first application (network management applications 208a, 208b) for executing on said foundational layer (fig. 3),
- a second application (network management applications 208a, 208b) for execution on said foundational layer (fig. 3),
- a third event-logging application for execution on said foundational layer (application with enabled debug object) / an event logging mechanism (logging service layer 316, 318, and centralized logger 236), for functioning interoperably with (enable/disable state of a debug object) but separately (separate address spaces, fig. 3) from said first and second applications, and for generating an event log (log file 506 containing records 514) for either of said first and second applications (application with its corresponding debug object enabled). See col. 8, lines 11-43; col. 11, line 1 – col. 12, line 29.

10. Niemi teaches only when an application's debug object is enabled, the application's event data is logged, generating an event log. Col. 8, lines 11-43; col. 11, line 1 – col. 12, line 29.

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Therefore, it would have been obvious that in Niemi at least one of said first and second applications does not generate an event log, i.e., when its debug object is not enabled. Regarding 'event-logging application', note section 3 of this office action.

11. As to claim 24, Niemi teaches storing, for each event to be logged, a temporal attribute (time stamp 516) of the event in the event object (record 514) associated with the event. See fig. 5 and denoting text.

12. As to claim 26, Niemi teaches a first area of memory allocated to the first application, a second area of memory allocated to the second application, and a third area of memory allocated to the event logging mechanism, wherein the third area of memory is separate from the areas of memory allocated to the first and second applications (separate address spaces; see Fig. 3 and associated text).

13. As to claim 27, Niemi teaches an enable/disable state for each event identified by the application wherein the disable state precludes any system from creating an event log (col. 11, lines 45-65).

14. As to claim 28, Niemi teaches generating an event log is performed for each event having event logging enabled (col. 11, lines 45-65).

15. As to claim 29, see rejection of claim 13 above.

**16. Claims 1-3, 11, 14, 19, 21, 30-32 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al (U.S. 6,470,388) in view of Ladwig (U.S. 2002/0138663 A1).**

17. As to claim 11, Niemi teaches the event logging mechanism logs time (time stamp 516) and other event information (fields 518, 520, 522, 524) into an event object (record or data entry 514) for every event to be logged. Col. 12, lines 11-15.

18. Niemi does not teach logging start time and end time. Ladwig teaches for every event, logging start time (Datetime; page 4, section 0054) and duration time (Duration; page 4, section 0058) for each event. Although Ladwig does not teach the end time, it would have been obvious one of ordinary skill in the art could store the end time instead of duration time for the event.

19. One of ordinary skill in the art would have been motivated to combine the teachings of Niemi and Ladwig because this would allowed customization of event logging and analysis for each application of Niemi.

20. As to claim 14, Niemi teaches the event logging mechanism can be turned on (set state of the debug object to disabled) and then off (set state of the debug object to disabled) from beyond the execution space of said applications within said foundation layer (from centralized logging facility). See col. 11, lines 24-44; col. 14, lines 1-45).

21. As to claim 21, Niemi teaches an apparatus comprising:

- means for creating (logging service layer 316, 318, network communication facility 332, 334, and centralized logger 236), for every event (event) to be logged that has not been logged [it is noted that Niemi does not disclose a prior logging step] within an application (application 208a, 208b), an event object (record 514), said event object occupying a memory space (database 504 / log file 506) (col. 12, lines 8-15);
- means for logging (logging service layer 316, 318, and centralized logger 236) within said event object (record 514) the time (time stamp 516) and other event information (fields 518, 520, 522, 524). Col. 12, lines 11-15.

22. Niemi does not teach logging start time and end time. Ladwig teaches for every event, logging start time (Datetime; page 4, section 0054) and duration time (Duration; page 4, section 0058) for each event. Although Ladwig does not teach the end time, it would have been obvious one of ordinary skill in the art could store the end time instead of duration time for the event.

23. One of ordinary skill in the art would have been motivated to combine the teachings of Niemi and Ladwig because this would allowed customization of event logging and analysis for each application of Niemi.

24. Regarding the event object executing independent of said application, in Niemi, the event logging mechanism (logging service layer 316, 318, and centralized logger 236) executes



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independent of the applications [It is noted that getting debug objects or states does not involve actions of an application program, col. 14, lines 46-63; col. 15, lines 43-48].

25. As to claim 1, it is a method claim of claim 21, and thus note claim 21 for discussion.

26. As to claims 2, 3, Niemi teaches checking, for each event identified by the application, whether event logging has been turned on (issue GetState() on debug object), creating and logging are performed for each event having event logging turned on (perform logging if state of the debug object is enabled), wherein a plurality of event objects are created (record 514) and logged (log file 516) for a plurality of events (402, 404, 406, 408). See col. 8, lines 9-42; col. 11, line 66 – col. 12, line 15.

27. As to claim 19, it is a program product claim of claim 1, thus note claim 1 for discussion.

28. As to claim 30, it is the same as the method claim of claim 1 and is rejected under the same ground of rejection. Further see Fig. 3 and associated text.

29. As to claim 31, see rejection of claim 27 above.

30. As to claim 32, see rejection of claim 2 above.

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31. As to claim 34, Niemi teaches the memory space occupied by the event log is within memory space that has been allocated solely to the event logging mechanism (central logging facility; see Fig. 2 and associated text).

32. As to claim 35, Niemi teaches the events that are logged by the event logging mechanism have not been previously logged by any other application (see rejection of claim 21 above regarding this limitation).

33. As to claim 36, Niemi teaches the information placed in the event log is first logged by the event logging mechanism (see rejection of claim 21 above regarding this limitation)

34. As to claim 37, see rejection of claim 27 above.

35. As to claim 38, see rejection of claim 29 above.

**36. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al (U.S. 6,470,388) in view of Nock (U.S. 6,144,967).**

37. As to claim 15, Nock teaches turning on/off and configuring the event logging mechanism via a user interface (framework user initiates log analysis procedure via user interface, col. 15, lines 54-67). Therefore, it would have been obvious to turn on/off and configure the event logging mechanism via a user interface in Niemi. Browser is a well-known

type of user interface. Therefore, it would have been obvious to use a browser to implement the user interface of Nock. Note discussion of claim 11 for a motivation to combine.

38. As to claim 16, Niemi teaches the event logging mechanism generates a plurality of event objects (plurality of records 514 in log file 506, fig. 5) and is configured to analyze the event objects (access and review contents of log file) and present to the results via the user interface (fig. 6). See col. 13, lines 2-15. Note discussion of claim 15 for using a browser to implement the user interface.

**39. Claims 17-18, 20, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al (U.S. 6,470,388) in view of Nock (U.S. 6,144,967) further in view of Ben-Natan et al (U.S. 5,740,354).**

40. As to claims 17, 18, Niemi as modified by Nock teaches (Nock) analyzing event objects based upon hierarchical grouping (perform\_analysis() at log section or log levels, fig.s 17, 19 and denoting text) and aggregating event objects deemed identical based upon hierarchical grouping (multiple (0...n) log section objects, fig. 14 and denoting text).

41. Niemi as modified by Nock does not teach contextual grouping of events. Ben-Natan teaches processing logged event data, including analyzing event data based on contextual grouping (related errors). See col. 14, lines 2-10. Therefore, it would have been obvious to analyze event objects/data based on contextual grouping in Niemi as modified.

42. One of ordinary skill in the art would have been motivated to combine the teachings of Niemi as modified and Ben-Natan because this would have provided users of Niemi better understanding of events/errors via association. (Ben-Natan, col. 3, line 37 – col. 4, line 14).

43. As to claims 20, 22, 25, note the discussion of claim 17.

**44. Claims 4 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al (U.S. 6,470,388) in view of Ladwig (U.S. 2002/0138663 A1) further in view of Sato (U.S. 5,819,094).**

45. As to claim 4, Sato teaches event logging and analysis, including analyzing event objects after event logging is turned off in that a user analyzes the log data contained within the history diagram, after program execution, and thus recording of the log data / history diagram, are completed (Col. 2, lines 43-56; col. 9, lines 18-57). Therefore, it would have been obvious to analyze event objects after event logging is turned off in Niemi as modified. One of ordinary skill in the art would have been motivated to combine the teachings of Niemi as modified and Sato because this would have enhanced log analysis by using visual manipulation of the log data. (Sato, col. 3, lines 6-13).

46. As to claim 33, see rejection of claim 4 above.

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47. **Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al (U.S. 6,470,388) in view of Ladwig (U.S. 2002/0138663 A1) and Sato (U.S. 5,819,094) further in view of Nock (U.S. 6,144,967).**

48. As to claim 5, see rejection of claim 17 above.

49. As to claim 6, see rejection of claim 18 above.

50. As to claim 7, Nock teaches traversing through the hierarchy of subgroups until the subgroup of finest granularity is traversed, subdividing the events into further subgroups, computing statistics for each subgroup while traversing, and displaying the statistics (col. 14, line 49 – col. 15, line 2 and col. 16, line 30 – col. 17, line 14).

51. As to claims 8-9, see rejections of claim 17, 18 and 7 above.

### ***Response to Arguments***

52. Applicant's arguments filed 8/1/2005 have been fully considered but they are not persuasive.

In the remarks, Applicant argued in substance that (1) Niemi does not teach nor suggest creating an event object for an event to be logged that has not yet been logged within an application because in Niemi, the application provides logging at the local node regardless of whether logging is on or off, thus the central logger can only create data from the event logs of

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the local loggers, (2) Niemi does not teach logging within the event object the start time and end time of the event, and (3) it is incorrect to assert that Niemi teaches creating event log data without any reference to event logs of the application.

Examiner respectfully traverses Applicant arguments:

- As to the point (1), Niemi does not teach providing logging at each local node as asserted by the applicant. Niemi teaches at each local node, a logging service layer which includes a communication resource, a call-back generator, and at least one state machine (col. 6, lines 13-19), the logging service layer communicates with the central logging facility and issues request to log an event (col. 10, lines 19-26 and col. 11, lines 57-65). Thus, there is not logging occur at each local node, thus, the argument is not persuasive.

- As to the point (2), rejection has been changed to cite Ladwig to teach the limitation regarding start time and end time relating to an event (see rejection of claim 21 for more information).

- As to the point (3), refer to discussion of point (1) above.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 5:30AM - 2:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**


Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

Diem Cao

  
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